# GARDENIN



ANTIRRHINUMS.

Hy W. B. COLSON. Each Sunday I have read with muc interest your notes on gardening and floriculture and would suggest that these notes from time to time be compiled in book form and published.

Unfortunately many of the seed catalogues published take it for granted that most people have a knowledge of gardening in all its branches and devote the greater part of their pages to beautiful descriptions rather than practical instructions.

Your articles on the aster were most admirable, but after all, the aster, for the amateur to grow, is more often than otherwise a most disappointing flower, its diseases are hard to overome, it should be planted in a different location each year, and if one is fortunate enough to obtain beautiful blooms they are often attacked by the black beetle and destroyed before you have a chance to pick them off, which is the only way to get rid of them Then too the blooming period is comparatively short.

rhinum, or snap dragon. When handled acres. by the merest tyro it will give results not to be obtained by any other plant. Artistically it is more attractive than the aster and many times easier to grow, will last as long when cut for the home, its foliage will not turn yellow; and it will flower from early summer, in fact spring, until cu by frost, and even after the firs

In color it ranges through all shade and combinations of colors, from pale cently lavender shades have been in-troduced. You will find beautiful salmons, salmon and pink, fine yellows, it fact all sorts of most beautiful mixtures, and when you consider that the snap dragon is subject to scarcely any of the usual diseases, nor is it attacked when grown out doors by the numerous aphides or bugs from which other plants suffer, will stand the hottest and driest kind of weather, and always look green and healthy-adding to this its ease of culture from seed and you cannot ask for more from any flower.

The new varieties when well grown will give spikes three feet tall with quantities of flowers.

The seed catalogues speak of the snap dragon as a perennial. This may be so, but I have not had that experience. Either as a biennial or as annual, it gives equal satisfaction, but blooms earlier as a biennial.

The snap dragon is grown exactly the same as the pansy and requires ne more protection during the winter.

To those who have cold frames th seeds should be planted in August or early September in finely prepared seed beds. The seed is very small and simply wants covering. After preparing the bed I wet it thoroughly and after a few minutes sow the seed over the surface. I then cover with sand and press down thoroughly with a flat board. If the board is left over the seeds, place a small piece of wood under each end of the board, raising it say one-quarter to one-half inch above the ground. The seeds will not need watering again until they are showing through at which time the board must be removed and a lattice placed over the seedlings, say a foot from the ground, to prevent them from burning

In about three or four weeks these seedlings will be large enough to be transplanted to the cold frames, where they will remain all winter, standing the hardest freezes, and early in the spring will have made fine plants ready for the flower beds, where they will loom all summer. .
The seedlings should be planted about

four inches each way in the cold frames; in the garden from fourteen

those without cold frames it is needless to talk hot beds, so will take up their culture as annuals. Early in March if sown in shallow pans or boxes March if sown in shallow pairs of boxes of finely prepared soil and placed in a sylvania, where the climate is practisumny window they will make fine cally the same as New York city, were plants, ready to plant out as soon as asked for their opinions. Dr. Cryer fa-settled weather has arrived, and from then on will be in constant bloom.

#### \$6,342.25 PROFIT FROM FIVE ACRES OF CELERY.

G. W. Chapman of Manatee county. Florida, produced 5,515 crates of celery from a five acre plot. The net profit per crate was \$1.15, or \$6.342.25 from the five acres. This crop was marketed before the middle of February and the land will be used to produce other crops during the early spring months.

Florida is developing rapidly. The Teplitz. high areas in the Sarasota district, lying above the Manatee celery districts, dinia, Shower of Gold, Dorothy Perare peculiarly adapted to the produc- kins. tion of midwinter strawberries. To-matoes are the main crop on the Siesta ported as having grown 150 crates that cember at \$2 per crate. One thousand a list of roses, probably more than you crates to the acre is the average yield, asked for, but these are all the best great hives until soon they are as large

#### MORE THAN \$25,000 NET PROFIT FROM 100 ACRES OF PEACHES.

Fruit growing is very well described in the popular song, "It's not all honey and it's not all jam," but properly handled it averages well.

This is the story of a peach orchard in Worcester county, Maryland. The erop of 1912 was a total loss, caused by brown rot. The same block of trees in 1913, after a thorough spraying campaign, yielded the largest crop produced in the State of Maryland.

Early in 1913 the owner of the orchard, suffering from the loss of the Maryland Agricultural College for asthat institution took charge of the spraying campaign, spraying with fungicide and poison combined. The beneficial effect was apparent in forty-

The success of the work is best shown

in the shipments: 20,214 half bushel baskets, packed 640 baskets to the car, a total of more than thirty-one cars; 12.089 carriers packed 400 carries to the car, a total of thirty cars, a grand total of sixty-two cars, or more than 19,174

The first grade peaches in six gallon carriers sold for \$2.09 net, on the cars at the orchard. The fixed grades sold for \$1.25. The best price received for half bushel baskets was \$1.05 a basket and the lowest price 60 cents.

making the average price a bushel, including all grades and soft peaches sold locally, \$1.83. The first full car was bank, My Maryland, Pharisaer, Prince loaded on July 18 and the last full car de Bulgarie, Robert Huey, Viscountess was loaded on August 22.

The expenses of growing, picking, packing and loading on cars were as

follows:
Ploughing, cultivating, &c \$776.37
Pruning. &c \$95.71
Pertilising, seeding, &c 60.50
Spraying 704.72
Harvesting, hauling, loading, &c 3,286.06
leing, on consignment chipment 242.60
Carriers 2.058.73
Baskets 1.085.90
Labels 38.25
Pads 149.00
Spray material 1,5:8.95
Total

To my mind the most attractive flower left a net profit of \$25,838,84. An exfor the amateur to grow is the antir-cellent record of production from 100

ROSES.

After obtaining the opinions of the eading commercial rose growers on the that is, Manetti for the Hybrid Perpetbest roses for amateurs in the latitude uals, Brier for the Teas and Hybrid of New York city, which were recently Teas. &c. Multiflora is used exten-

Pink-Mrs. George Dickson, John Laing, Baroness Rothschild. Frau Karl Druschki, the best white

George Arends, or pink Frau Karl Druschki, which is highly recom-mended, but I have not yet tested it. HYBRID TEAS.

Antoine Revolre, Betty, Caroline Testout, Dorothy Page Roberts, Duchess of Wellington, Duchess of Westminster General MacArthur, George C. Wand Grace Molyneaux, Jonkheer J. L. Mock, Killarney, pink; Lady Alice Stanley, Laurent Carle, Lyon Rose, Mrs. Aaron Ward, Mrs. A. R. Waddell, Mrs. Charles Custis Harrison, Mrs. Harold Brockle-bank, My Maryland, Pharisaer, Prince Folkestone, Harry Kirk (hardy tea).

Climbing roses are popular and sat-tisfactory. The Crimson Rambler type has fallen into disfavor owing to the rusting of the foliage, and has been replaced to a great extent by the Wichu-riana Hybrids. The best of these are: Dorothy Perkins, Christine Wright, Hiawatha, Excelsa, Gardenia, Evangeline, Eliza Robichon.

The best roses for winter forcing are Killarney, White Killarney, Killarney Brilliant, American Beauty, Kaiserin Auguste Victoria, Mrs. Aaron Ward ady Hillingdon, Irish Fire Flame, My Maryland, Madame Charles Roussell Mrs. George Shawyer.

Roses budded on congental stocks come into bearing earlier, make better rood, give more and finer blooms and last as long as & not longer than own root roses. I have budded plants that have been blooming for thirty years and promise to be fine for many years to come. By congenial stocks is meant the stocks adapted to the particular class-



published, we decided to consult some of the leading amateurs.

Two successful amateur rose ers, Dr. Robert Huey and Dr. M. H. Cryer, both located in eastern Penn-

Hybrid Teas-Duchess of Wellington, Lady Hillingdon, Killarney, Harry Kirk, Lady Alice Stanley, Mrs. Charles Custis Harrison, Caroline Testout, Mrs. A. R. Waddell, Richmond, Sunburst, Joseph Hill, Jonkheer Mock.

Hybrid Teas-Frau Karl Druschki, Commander Jules Grameaux, J. B. Clark, Hon. Ira Bingham. Pillar Roses-Gustav Regis, Billard

et Barrie, Mrs. W. J. Grant, Gruss an

Climbing Roses-Tausendschon, Gar-

These roses have given me great satinfaction. Most of them are budded on manetti stock.

Dr. Huey says: I am sending you

nundred varieties. They were all grown in beds dug to the depth of two feet and well enriched with cow manure and bone meal. These fertilizers have been demonstrated to nitrogen. be the best for roses in this climate.

The most satisfactory and deservedly

the Hybrid Teas. Where the temperature does not fall below 10 degrees Fahrenheit they will survive the win-ters and bloom from May until November, in the latitude of New York In colder regions, such as northern New York, the Hybrid Perpetuals should be planted, but they cannot be de-pended upon for flowers after the first bloom, although many give a few flow ers on the terminal shoots in the autumn. Oscar Cordel blooms fairly well

from June until October. HYBRID PERPETUALA. Red-Ulrich Brunner, Captain Hayward, Oscar Cordel

Prince Camille de Rohan, dark crim-

sively in Holland as a stock, and thousands of roses on this stock are annually imported to the United States and sold chiefly in the department stores. They have given me poor results and I prefer own root roses to those on Multiflora.

### One Billion Bacteria a Week

As soon as the roots of a leguminous crop begin to ...ow, if the soil is sweet -that is, does not lack lime-tiny bacteria, so small that it takes a powerful glass to see them, attach themselves to the roots of the pea or other legumin-It takes only about twenty minutes to complete the growth of one of these entities, but they do not die. They simply divide themselves into two, each starting a new nodule or adding to the one already begun and dividing again in twenty minutes and so on ad infinitum, multiplying at such a wonderful rate that it has been estimated that if there was one in good condition here a week ago there are a billion now. These little houses, nodules, grow into of their classes, and the selection is as wainuts on the roots of the plants. can be obtained, tomato growing in the result of thirty years of careful Their functions are peculiar and wonFlorida should be very profitable.

Their functions are peculiar and wonselection and observation of some six
derfully interesting as well as profitable, says Col. Henry Exall in Dry

The air, as you know, is four-fifths nitrogen. Nitrogen is the most expensive fertilizer that you buy, and it is positively essential to plant life. Now. these little entitles suck air into the earth and serate the soil. It is just as necessary for a plant to have air as it is for an animal to breathe it. They city. therefore do the splendid service of bringing the air into the soil, and in bringing it in they digest the nitrogen that is in the air and convert it into mineral nitrates that are soluble water and immediately available for plant food. It is estimated that under favorable conditions, where an acre of land is well inoculated, the bacteria will bring \$20 worth of nitrogen to the acre thin the year-that is, it would cost \$20 and more to buy and put upon the land the nitrogen that these little enti-

RAISING PRIZE WINNING FLOW-

By WALTER E. BOYD.

I am an amateur enthusiast and de vote a little time daily to the care of my plants. The exercise is healthful and enjoy the benefits derived from being in the open air, as well as the results of my labor, for my plants, due to the painstaking care with which I fertilize and cultivate, thrive and bloom profusely. Each season I grow a different variety of annuals. A year ago I selected zinnins, those old fashioned flowers called "youth and old age." They are coarse flowers, but the colors are many and very beautiful. As briefly as possible I will describe how I grew them and won the first prize at the More mouth county, New Jersey, Agricultural Fair, over fourteen competitors. The plants were grown in a plot with a southern exposure, which remained sunny almost all day. The fall previ-ous to planting I spread the ground thickly with well rotted stable manure and dried oak leaves, which were spaded under to the full depth of the spade. The mixed fertilizer rotted well during the winter. In the spring the ground was thoroughly raked and planted with two five cent packages of sinnia seed, double, mixed colors. I started the seeds in the open ground the middle of May. When the plants had put forth four leaves they were transplanted to the prepared ground and placed eighteen inches apart, giving sufficient space to cultivate each plant separately, which I did with a hoe ever two or three days during the summer. As the season advanced I felt more than paid for the extra space given the plants, for they grew large and strong, and produced three times the usual number of blooms. The weather being very dry l was obliged to water them every night. The first week in August I spread a little bone meal between the rows and raked it in well. All summer I kept old flowers cut from the plants. The flowers were to be cut and exhibited the last week in August. The second week in the month I began pinching off the buds, allowing only eight flowers to remain on a single plant. This increased the size of the flowers and added to their brilliancy of color. The mixed fertilizer proved an excellent tonic for the plants. I had forty-two plants under cultivation, and some of the blossoms measured from two and one-half to five inches in diameter. The colors were splendid, varying in shades of orange,

#### Heading Lettuce.

emon, garnet, old ivory, old rose, vio-

let, canary, brown, white, carmine and

Every amateur gardener tries to grow lettuce that will head, but few succeed. After testing many of the much advertised varieties I am satisfied to stick May King and Wayahead as ones to be depended on for the ordinary garden with a little care; and I grow as nice heads as are usually seen on a market stand.

Plant early while ground is cold, rather light soil preferable, working into top of ground, after spading, plenty of chicken manure or a commercial fertilizer containing a liberal amount of ammonia. Sow sparingly in rows tweive inches apart, cover seed very lightly and if chicken manure is used wet down as soon as sown with a solution of nitrate of soda, two tablespoonfuls of crystals to three gallons of water. When four big leaves appear thin to six inches apart in rows and cultivate often, lightly. Make a frame four feet square by ten inches nigh, eight plaster lath will make all but corner posts, and cover with four yards of thinnest cheesecloth. This frame will reach over three rows and bleach enough for one time, keeping it on all dry days and off at night, sprinkling the lettuce each morning before covering. The frame to be used after heads are well formed and continued until about a week before cut-ting. Heads will then be tender and

Excess plants may be that are not not do so well as those that are not C. G. Excess plants may be reset, but will

RIDGEWOOD, N. J.

Apples Bring \$300 an Acre.

George Foster Kent of Troy, Kan., will clear over \$1.500 this year from five acres of Jonathan apples, or 180 trees, according to the Kansas City Star. About three years ago he bought a neglected and rundown orchard that adjoined Troy on the north. Neighbors believed he had made a bad deal, but he ous crop and start to housekeeping, set about learning the orchard business building a little nodule, as it is called, and trimmed, sprayed and intelligently cared for his orchard.

Kent sold his Jonathans to Gridley Maxon & Co. for \$3.25 a barrel. They furnish the barrels and do the packing and he pays for the picking and hauling. There will be about seven hundred barrels from the 180 trees, not counting the cull apples, which are expected to pay for the picking and hauling.

Davis apple trees. He sold his Ben Davis apples to Stacy Bros, of Lin-coln for \$2.25 a barrel, and they fur-nished the barrels and packed the

### Notes on Pruning.

Do not cut out large limbs. Never prune in frosty weather. Frost-bitten wounds are slow to heal. Never leave the stubs in cutting off

Prune annually, but never heavily. Wounds heal most rapidly in spring Heavy pruning conduces to wood

In transplanting cut back top and

Keep the tree free of suckers Summer pruning induces fruitfulness. Torn wounds are generally fatal. Paint over the larger wounds,

A heavy pruning is always followed by a heavy growth of suckers. Winter pruning increases the vigor of the plant.-Greens Fruit Grower.

know if manure from the chicken house will be suitable for peach and apple trees. Chicken manure, barnyard manure and commercial fertilizer are all good for fruit trees and small fruits. Spread over the roots as far out as the branches of the trees extend

# SPRAY WITH IN-SECT-INE

SPRAYING TABLE IN-SECT-INE is the only Compound ever mixed that kills **BOTH SCALE AND INSECTS** 

	SCALE AND INS	
AND WHAT TO SPRAY FOR.	WHAT TO SPRAY	TIME OF FIRST SPRAYING.
APPLES-Bitter Rot		First appearance of rot. On first appearance of worms.
Beab	pray with Id-sect-ine	As the buds are swelling.
Bertle	pray with in-sect-ine	Early spring. After cutting crop.
CAUIFLOWER	pray with In-sect-ine	On first appearance of worms.
	pray with In-sect-ine	On young seedlings.
Leaf-spot	pray with In-sect-ine	At first appearance. Before buds open. Just before blossoms open.
Downy Mildow	pray with In-cost-inc	When plants begin to run. When plants begin to run.
Lonf-spet	pray with In-crot-inc	As leaves are unfold- ing. When they first ap- pear.
Loof-spet	pray with In-cost-inc	Refere leaves start. When buds are breaking.
Anthromon Berry Moth Bowny or Foundary Mildew	pray with In-sect-ine	Just before suds open. Before blossoms are ready to open. Just before blossom-
		Just before blossom- ing. Just before blossom- ing.
Lonf-bilght	pray with In-sect-ine	When plants begin to vine. July 25 to Aug. 1. When · lants begin to vine.
Brown Ret	pray with In-sect-inc	In March or April, or both, to make doubly sure. About time shucks
	pray with In-sect-ine	About time shucks are sh. ding from young fruit or on first appearance. Just as buds begin to swell.
San Jose Scale	pray with In-sect-ine	In late fall or early spring, or both, if bad.
Poytla	pray with In-sect-ine	Cut out the branches on first appearance on twigs. In wister use com- mercial lime-sul-
Shot-hole Fun-	pray with In-sect-inc	with starting of
Ret		On appearance of aphia. When leaves are half grown. As buds are swelling
	pray with In-sect-ine	When plants are 6
Potato Beetle		Inches high. As for early blight to July. When pest appears.
Anthracess	pray with In-sect-ine	Before leaves open. When peat first appears.
ROSE-		When leaves are half grown.
Lenf-spet	pray with In-sect-inc	of fungue On appearance of
	pray with In-sect-ine	stugs.
Aphie	pray with In-sect-inc	Spray underside of

#### UNITED STATES DEPARTMENT OF AGRICULTURE BUREAU OF ENTOMOLOGY

MASKINGT M. D. C.

December 11, 1913

Dear Sirs:

Referring to sample of In-sect-ine submitted to this office by Mr. J. E. Keating in company with Mr. J. B. Porter, under date of October 9th. I have pleasure in advising you that this prep. aration has been analyzed in the Bureau of Chemistry and found to consist of a mixture of calcium and lead arsenates, Bordeaux mixture and some crude form of tar oil. It also contains small amounts of sulphates, chlorides. magnesium carbonate and a trace of ammonia.

The various ingredients which enter into the sample of In-sect-ine, as analyzed, are not present in large enough quantities, in the light of our present knowledge, to be injurious to plant life when used for spraying if applied in the usual manner and at proper dilutions. The compound is very similar to a Bordeaux mix. ture containing arsenate of lead and a little sulphur.

Very truly yours, L. O. HOWARD. Chief of Bureau.

Spray Chemical Compounding Co., Buffalo, N. Y.

## IN-SECT-INE

Contains 21 Ingredients and Is Compounded \_\_\_\_With\_\_\_\_ Bordeaux Mixture



Write us for Catalogue

Remember you need nothing

else but In-sect-ine for all kinds

Spray your shade trees, fruit that grows with In-sect-ine.

One pint of In-sect-ine will make fifty gallons of spraying

make four hundred gallons of spraying liquid.

One gallon of in-sect-ine will 50 cents per pint. \$4.00 per gallon.

Spray Chemical Compounding Co. 1202 General Electric Building Buffalo, N. Y.

FLOWER HOLDERS.

Strips of lead one inch to two inches wide, curled up into various shapes, are useful for holding cut flowers in wide,



open top dishes. A piece of lead pipe cut on one side and flattened out can to ship fruit safely such long distances then be cut to proper width and made into forms.

Physostegia Virginica. Charles E. Parnell in Park's Magazine

says this unique and attractive hardy perennial plant deserves to be generally known, as for single specimens in the mixed flowers border or as borders for shrubbery its value is beyond question, being perfectly hardy, of strong, robust growth and free from all inseg pests. It should be grown in a very deep, well enriched soil and an open sunny situation. It begins to bloom early in July, and under favorable conditions will continue for about two months. The flowers are produced in large, graceful spikes, on stalks about eighteen inches in height, and are of a beautiful bright pink color. It must be remembered that the ground cannot be too well enriched or made too deep for this plant; so in early winter a good mulch of stable manure should be and of this as much as possible be dug in around the plants in the ensuing spring.

Cannas are easily raised from seeds. Soak the seeds in warm water twentyfour hours before planting to softer the shell. The shell is very hard and on this account the common name of Indian shot was given to the canna. Start early and they will flower the first season. A packet of mixed seeds will give a variety of colora

It is said that moles will not burron

As soon as peet ap-

Soon after fruit be-gins to set. Three weeks after transplanting. Spray underside of leaves theroughly.

soon as leaves are out.

nray

Gypsophila paniculata if sown early can be treated as an annual. Their misty white panicles of bloom are largely used for mixing with other cut

flowers. A little lime or old mortar powdere and mixed with the soil will cause mignonette to flower prolifically.

Ten thousand barrels of apples were shipped from Boston to Germany last autumn. This is the largest shipment ever taken to Germany at one time. There is a steady demand abroad for American apples.

It is not so many years ago that the first shipment of apples was made from this country to England. Each apple was carefully wrapped in several thicknesses of newspaper and packed in bar-rels. They arrived in London safely and attracted considerable attention. This was before the time of fast steam It was then supposed impossible

Sturdy as Oaks. French 1850

A Montana reader advises deep planting of gladiolus bulbs to obtain richer colorings. Five inches is the depth The Supply is Limited. Act at once. DAVID BERBERT & SON VICE

COHO TOBACCO SOIL

Sample bag 100 lbs. \$1.00 f. c. b. Lancasier. Pa. 7 lb. box, by mail. 25 cts. RALPH W. COHO, Lancaster, Pa.

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SPECIAL FLOWER SHOW OFFI



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